What Is Claimed Is:

1. A sound reproduction method, comprising the
steps of:

delimiting a reproduction input sound signal
obtained by reproducing, from a recording medium, a sound
signal recorded on the recording medium at a speed higher
than a normal speed into successive processing unit
periods;

deleting a sound absence portion or portions of the
reproduction input sound signal within a range within
which a reproduction output sound signal of an amount
corresponding to that at the normal speed is obtained
from an output buffer to join sound presence portions of
the reproduction input sound signal which precede and
follow the sound absence portion or portions to obtain a
joined reproduction input sound signal for each
processing unit period;

partly deleting, if a sound presence portion or
portions of an amount which cannot be stored into said
output buffer are included in the reproduction input
sound signal of any of the processing unit periods, the
sound presence portion or portions to join sound presence
portions which precede and follow the sound absence
portion or portions and compressing the reproduction

input sound signal of the processing unit period to

obtain a compressed reproduction input sound signal of

the processing unit period; and

writing the joined reproduction input sound signal

or the compressed reproduction input signal for each

processing unit period into said output buffer.

2. A sound reproduction method according to claim

1, wherein, when a sound absence portion is to be deleted

to join sound presence portions which precede and follow

the sound absence portion to each other, fade-out

processing is performed for the sound presence portion

which precedes the joining point between the sound

presence portions whereas fade-in processing is performed

for the sound presence portion which follows the joining

point.

3. A sound reproduction method according to claim

1, wherein, when the reproduction input sound signal of a

processing unit period is to be compressed, sound

presence portions which precede and follow the sound

absence portion or each of the sound presence portions to

be deleted are joined together by cross fading such that

the preceding and following sound presence portions are

partially overlapped with each other within a fade period

and a positional relationship of the preceding and

following sound presence portions is adjusted so that a finite difference between the preceding and following sound presence portions within the fade period may be minimized.

4. A sound reproduction method according to claim 1, wherein the processing unit periods have a fixed time.

5. A sound reproduction method according to claim 1, wherein each of the processing unit periods has a time which varies in response to a musical interval of a main component of the reproduction input sound signal.

6. A sound reproduction method according to claim 1, wherein a boundary between a sound absence portion and a sound presence portion of the reproduction input sound signal or a portion in a sound presence portion of the reproduction input sound signal which is relatively low in level is decided as a breakpoint of a processing unit period.

7. A sound reproduction method according to claim 1, wherein, when sound outputs of a plurality of channels are to be obtained, discrimination between a sound presence portion and a sound absence portion is performed based on an average value of the reproduction input sound signal of each channel, and joining of sound presence portions is performed independently for each of the

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reproduction input sound signals of the channels.

8. A sound reproduction method according to claim 1, wherein, upon normal speed reproduction, said output buffer is used for time adjustment to synchronize a video output and a sound output with each other.

9. A sound reproduction method, comprising the steps of:

suppressing an amplitude of a termination portion of each continuous sound portion of a reproduction input sound signal obtained by reproducing, from a recording medium, a sound signal recorded on the recording medium at a speed higher than a normal;

delimiting the reproduction input sound signal after the amplitude suppression processing into successive processing unit periods;

deleting a sound absence portion or portions of the reproduction input sound signal within a range within which a reproduction output sound signal of an amount corresponding to that at the normal speed is obtained from an output buffer to join sound presence portions of the reproduction input sound signal which precede and follow the sound absence portion or portions to obtain a joined reproduction input sound signal for each processing unit period;

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partly deleting, if a sound presence portion or portions of an amount which cannot be stored into said output buffer are included in the reproduction input sound signal of any of the processing unit periods, the sound presence portion or portions to join sound presence portions which precede and follow the sound absence portion or portions and compressing the reproduction input sound signal of the processing unit period to obtain a compressed reproduction input sound signal of the processing unit period; and

writing the joined reproduction input sound signal or the compressed reproduction input signal for each processing unit period into said output buffer.

10. A sound reproduction method according to claim 9, wherein, in the step of suppressing the amplitude of a termination portion of each continuous sound portion, a termination of the continuous sound portion is predicted, and suppression of the amplitude is started at the predicted point whereas the suppression of the amplitude is cancelled when a start point of a next continuous sound portion is detected.

11. A sound reproduction method according to claim 10, wherein, when a signal level of the reproduction input sound signal is in a decreasing tendency and

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besides becomes lower than a threshold level, it is

discriminated that the continuous sound portion enters a

process to approach a termination, and the termination of

the continuous sound portion is predicted.

12. A sound reproduction method according to claim

11, wherein a peak value of the signal level of the

reproduction input sound signal is detected, and the

threshold value is set in response to the detected peak

value.

13. A sound reproduction method according to claim

9, wherein, in the step of suppressing the amplitude of a

termination portion of each continuous sound portion, the

reproduction input sound signal is delayed, and a

termination of the continuous sound portion is detected

from the reproduction input sound signal before delayed

and the amplitude of the reproduction input sound signal

after delayed is suppressed based on a result of the

detection.

14. A sound reproduction apparatus, comprising:

a processing unit period setting section for

setting successive processing unit periods for speed

conversion processing to be performed for a reproduction

input sound signal obtained by reproducing, from a

recording medium a sound signal recorded on the

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recording medium at a speed higher than a normal speed;

an output buffer for obtaining a reproduction output sound signal; and

a speed conversion processing section for deleting a sound absence portion or portions of the reproduction input sound signal within a range within which a reproduction output sound signal of an amount corresponding to that at the normal speed is obtained from said output buffer to join sound presence portions of the reproduction input sound signal which precede and follow the sound absence portion or portions to obtain a joined reproduction input sound signal for each processing unit period, partly deleting, if a sound presence portion or portions of an amount which cannot be stored into said output buffer are included in the reproduction input sound signal of any of the processing unit periods, the sound presence portion or portions to join sound presence portions which precede and follow the sound presence portion or portions and compressing the reproduction input sound signal of the processing unit period to obtain a compressed reproduction input sound signal of the processing unit period, and writing the joined reproduction input sound signal or the compressed reproduction input signal for each processing unit period

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into said output buffer.

15. A sound reproduction apparatus according to claim 14, wherein said speed conversion section performs, when a sound absence portion is to be deleted to join sound presence portions which precede and follow the sound absence portion to each other, fade-out processing for the sound presence portion which precedes the joining point between the sound presence portions whereas and performs fade-in processing for the sound presence portion which follows the joining point.

16. A sound reproduction apparatus according to claim 14, wherein said speed conversion processing section joins, when the reproduction input sound signal of a processing unit period is to be compressed, sound presence portions which precede and follow the sound absence portion or each of the sound presence portions to be deleted together by cross fading such that the preceding and following sound presence portions are partially overlapped with each other within a fade period and a positional relationship of the preceding and following sound presence portions is adjusted so that a finite difference between the preceding and following sound presence portions within the fade period may be minimized.

17. A sound reproduction apparatus according to claim 14, wherein said processing unit period setting section sets the processing unit periods so as to have a fixed time.

18. A sound reproduction apparatus according to claim 14, further comprising a musical interval detection section for detecting a musical interval of a main component of the reproduction input sound signal, and wherein said processing unit period setting section sets each of the processing unit periods to have a time which varies in response to a musical interval of a main component of the reproduction input sound signal.

19. A sound reproduction apparatus according to claim 14, wherein said processing unit period setting section decides a boundary between a sound absence portion and a sound presence portion of the reproduction input sound signal or a portion in a sound presence portion of the reproduction input sound signal which is relatively low in level as a breakpoint of a processing unit period.

20. A sound reproduction method, comprising:

an amplitude suppression processing section for suppressing an amplitude of a termination portion of each continuous sound portion of a reproduction input sound

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signal obtained by reproducing, from a recording medium,
a sound signal recorded on the recording medium at a
speed higher than a normal speed into successive
processing unit periods;

a processing unit period setting section for
setting successive processing unit periods for speed
conversion processing to be performed for the
reproduction input sound signal after the amplitude
suppression processing;

an output buffer for obtaining a reproduction
output sound signal; and

a speed conversion processing section for deleting
a sound absence portion or portions of the reproduction
input sound signal within a range within which a
reproduction output sound signal of an amount
corresponding to that at the normal speed is obtained
from said output buffer to join sound presence portions
of the reproduction input sound signal which precede and
follow the sound absence portion or portions to obtain a
joined reproduction input sound signal for each
processing unit period, partly deleting, if a sound
presence portion or portions of an amount which cannot be
stored into said output buffer are included in the
reproduction input sound signal of any of the processing

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unit periods, the sound presence portion or portions to

join sound presence portions which precede and follow the

sound presence portion or portions and compressing the

reproduction input sound signal of the processing unit

period to obtain a compressed reproduction input sound

signal of the processing unit period, and writing the

joined reproduction input sound signal or the compressed

reproduction input signal for each processing unit period

into said output buffer.